Students Test Engineering Skills at the Fourth Annual "Great Moon Buggy Race"

Jerry Berg, Marshall Space Flight Center

The same spirit of ingenuity that produced NASA's lunar roving vehicle is back at work as college and high school students from around the country prepared for the fourth annual "Great Moon Buggy Race" in Huntsville, Alabama. Students put their engineering skills to the test by designing, building, and racing their versions of the "moon buggy" on a track simulating the lunar surface. Teams representing 16 colleges and high schools competed on, April 19 at the US Space and Rocket Center in Huntsville.

Competitors raced in the shadow of a giant Saturn V, like the rocket that boosted lunar rover to the moon, and a full-size space shuttle mock-up. The one-half mile race course is speckled with "lava ridges," "craters," and sandpits—simulating the lunar surface—as it winds through the Rocket Center's grounds. This year's moon buggy race was sponsored by Marshall Space Flight Center (MFSC), where the lunar roving vehicle and the Saturn V were designed and developed. The moon buggy helped astronauts explore their landing sites on the moon during the Apollo 15, 16, and 17 missions.

"The fascinating thing I see over and over is the students' interest in space," said Jim Dowdy, moon buggy competition coordinator at MSFC.""They go for anything that's connected to the space program. The competition enhances awareness of human exploration and development of space."

Each two-member team raced its human-powered buggy, piloted by one male and one female student. After a safety inspection of each vehicle, the competition began when the two crew members carried their moon buggy a distance of 20 feet and place it at the starting line. When signaled that the event clock was ticking, the crews unfolded and assembled their moon buggies from a bin no larger than a four-foot cube and raced around the course. The event clock stopped when the first vehicle and its crew crossed the finish line.

Prizes were awarded to the top three finishers. The top prize is a trip to Kennedy Space Center in Florida to watch a space shuttle launch. A prize also was awarded to the buggy judged to be the "best" design from an original, creative concept, offering the best technical solution to navigating on a planetary surface.

Teams included students from Arizona State University (Tempe), Auburn University (Auburn, Alabama), North Dakota State (Fargo), Ozark Community College (Springfield, Missouri), Pittsburg State University (Pittsburg, Kansas), Trenton State College (Trenton, New Jersey), University of Alabama in Huntsville, University of Evansville (Evansville, Indiana), University of Florida (Gainesville), University of Puerto Rico (Humacao), University of Vermont (Burlington), University of California (Santa Barbara), and the University of Tennessee (Knoxville). In addition to the college entries, there were three entries in the high school division: Bob Jones High School (Huntsville, Alabama), Monterey High School (Monterey, Lousianna), and Autauga County Vocational Center (Prattville, Alabama).

Other sponsors of the event included the American Institute of Aeronautics and Astronautics, Washington, DC, and the US Space and Rocket Center, Huntsville, Alabama.

OUTREACH

The goal of NASA's many outreach programs is to promote to the general public an understanding of how NASA makes significant contributions to American education systems and to institutions dedicated to improving science literacy. This newsletter provides one vehicle for reporting how applications and hardware used for space science and other NASA research and development can be adapted for use by teachers and their students and by non-NASA organizations.